



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7

11201 Renner Boulevard
Lenexa, Kansas 66219

DEC 22 2016

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Article Number: 7014 1200 0000 6124 2033

Big Ox Energy
1617 Dakota Avenue
South Sioux City, Nebraska 68776

Dear Sir or Madam:

The U.S. Environmental Protection Agency recently received information regarding releases of a hazardous substance in South Sioux City, Nebraska. As a result, the EPA is investigating the circumstances of the releases, actions undertaken by this facility as a result of the releases, the potential for future releases at this location and compliance with applicable statutory and regulatory requirements.

Specifically, the EPA requests information regarding the following incident:

<u>Date</u>	<u>NRC Report #</u>	<u>Substance</u>
December 14, 2016	1165452	Hydrogen Sulfide

This information request consists of a Chemical Release Questionnaire on the causes and effects of the chemical releases as well as the status of the facility's compliance with the other sections of the Emergency Planning and Community Right-to-Know Act.

This request for information is issued pursuant to the authority of Section 104(b) and (e) of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9604(b) and (e). Section 104(e) of CERCLA authorizes the EPA to require any person to furnish information about: (1) the identification, nature and quantity of materials generated, treated, stored, disposed of, or transported to a facility; (2) the nature or extent of a release or threatened release of a hazardous substance, pollutant or contaminant at or from a facility; and (3) the ability of a person to pay for or perform a cleanup.

Your response must be submitted within 30 calendar days of the date of your receipt of this request. You must fully respond to each question on the questionnaire. Refer to the definitions in the enclosed instructions for the CRQ when formulating your responses.

In accordance with the provisions of 40 CFR 2.203(b), you may assert a business confidentiality claim covering any part of the information set forth in your response which you deem confidential. Information subject to a claim of business confidentiality will be made available to the public only in accordance with the provisions of 40 CFR Part 2, Subpart B. If you fail to assert a claim of business confidentiality at the time of submission of your response, such information may be made available to the public without further notice.



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Pursuant to Section 104(e)(5) of CERCLA, 42 U.S.C. 9604(e)(5), failure to comply with a request for information issued pursuant to Section 104(e) may result in the assessment of a civil penalty not to exceed \$37,500 for each day of noncompliance. Furthermore, failure to timely, accurately and completely respond to this request may subject you to further civil and criminal penalties. Information provided may be used for all purposes authorized by Section 104(e) of CERCLA.

Your completed response should be sent to:

Christine Hoard
Environmental Protection Specialist
U.S. EPA Region 7
AWMD/CORP
11201 Renner Boulevard
Lenexa, Kansas 66219

If you have any questions, please contact Ms. Hoard at (913) 551-7775 or by email at hoard.christine@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Becky Weber".

Becky Weber
Director
Air and Waste Management Division

Enclosures

Enclosure 1

GENERAL INSTRUCTIONS

This questionnaire requests information to supplement reports you may have submitted to federal, state or local authorities concerning a release of a hazardous or toxic substance. The instructions below are intended to assist you in completing the questionnaire. Please read the instructions before you answer the questions. All questions must be answered. If a question is not applicable to your situation, answer N/A and proceed to the next question.

NOTE: Facility includes all buildings, equipment, structures and other stationary items which are located on a single site or on contiguous or adjacent sites which are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with such person). For purposes of emergency release notification, the term includes motor vehicles, rolling stock and aircraft.

DEFINITIONS

Please refer to the definitions below to clarify the precise meaning and use of the terms in the questionnaire.

By-pass: A piping system designed to provide an alternate pathway for gas or liquid streams that detours around a normal pathway. A by-pass condition refers to a systems operation using available by-pass systems. Certain instrument control alarms and interlocks may also be by-passed during abnormal operating conditions.

Containment System: Dikes, curbs, vaults, ponds and the like which serve to collect and temporarily hold spilled materials until such time as they are removed, disposed of, or transferred to a secure storage vessel.

Equipment (Mechanical) Failure: Failure of process or storage vessels, valves, piping, pumps or other equipment connecting vessels in a process which allows a loss of containment.

Extremely Hazardous Substance: Any element, compound, mixture, solution or substance designated under Section 302 of Title III of the Superfund Amendments and Reauthorization Act.

Facility Boundary: Fence line or property line marking the perimeter of a facility.

Failure Modes/Effects Analysis: A method for tabulating the system/plant equipment and their respective failure modes (description of how the equipment or system fails). The tabulation includes the effects of each failure mode on the system/plant and a critical ranking of them.

Fault Tree Analysis: A deductive technique that focuses on determining the causes of one particular accident event. The causes are determined using the fault tree - a graphic model that displays the various combinations of equipment faults and failures that can result in an accident event.

Federal Authority: Any federal government official delegated the responsibility under the Superfund statute for activities related to hazardous substance releases (e.g., National Response Center, U.S. Environmental Protection Agency and its regional offices).

General Public: Persons not present within the facility boundaries at the time the release occurred and/or with no business association to the facility owner (e.g., residents near the facility).

Hazard Assessment: Formal procedures employed to identify potential risks that could lead to an accidental release (e.g., Fault Tree analysis).

Hazard and Operability Studies: Formal team brainstorming to systematically identify hazards and operability problems throughout an entire facility. Certain guide-words such as no flow and no cooling are used. The consequences of credible deviations associated with the guide-words are identified and assessed.

Hazardous Substance: Any element, compound, mixture, solution or substance designated under Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act or Section 3001 of the Solid Waste Disposal Act.

Human Error Analysis (also known as Human Factors Analysis): A systematic evaluation of the factors that influence the performance, procedures and techniques of human operators, maintenance staff and other personnel. It will identify error likely situations that can cause an accident.

Immediate Response: Application of equipment, systems and procedures to capture, neutralize or destroy a hazardous substance before it is released to the environment (e.g., scrubber).

Incident: A release or a threat of release at your facility.

Local Authority: Any local government official responsible for remedial or related activities connected with a hazardous substance release (e.g., Local Emergency Planning Committee, fire department).

Loss of Containment: Release of hazardous substances from a process or storage vessel, interconnecting equipment and/or control equipment to the environment.

Migration: The movement of a substance from one place to another in air, water, soil or other media.

Operator Error: A mistake (e.g., leaving a valve open, failure to respond to process alarms, failure to maintain process variables or conditions at set point) made during operation of a process by the operator resulting in a release or loss of containment.

Owner: The legally designated individual, partnership or parties that own the facility.

Probabilistic Risk Assessment: The overall measure of risk determined through numerical evaluation of both accidental consequences and probabilities. This method is used to assess comparative risk where alternative designs exist.

Process Control and Monitoring: Control and detection equipment that provide information on the process status, standard operating conditions or parameters, and possible or imminent releases (e.g., pressure sensors, temperature sensors, chemical detectors on process lines).

Process Design: Design of process equipment and systems to limit the potential for accidental releases (e.g., redundant systems).

Process Vessel: A tank, reactor, vat or other piece of equipment in which substances are blended to form a mixture, or are reacted to convert them to some other product or form.

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing (including the abandonment or discarding of barrels, containers and other closed receptacles) of an extremely hazardous or hazardous substance into the environment from a storage or process vessel.

Responding Official: Person responsible for the final review of the information provided in the survey questionnaire for completeness and accuracy, (e.g., facility safety officer, environmental engineer, plant manager).

Response: Application of equipment, systems and procedures to capture, neutralize or destroy a hazardous substance after it is released to the environment (e.g., cleanup).

Standard Industrial Classification: The federal government categories of business activity. See Standard Industrial Classification Manual, Office of Management and Budget, U.S. Government Printing Office, Washington, D.C.

State Authority: Any state government official responsible for remedial or related activities connected with a hazardous substance release (e.g., State Emergency Response Commission, state transportation office).

Storage Vessel: Any container (e.g., tank, drum, bottle, tank car, cylinder) used to hold a raw or input material, a product or a by-product at ambient conditions or at an elevated or reduced temperature or pressure.

Upset: Process deviation from standard conditions because of a malfunction or failure of process controls, alarms or backup systems. These conditions could result from operator error, mechanical or equipment failure, or from unexpected events such as fire, explosion, power loss or water loss.

What If Analysis: Considers consequences associated with events that occur as a result of failures involving equipment, design or procedures. All possible system failures are collected in a list and evaluated (e.g., what if the feed pump fails). This method requires a basic understanding of what is intended, and the ability to combine possible deviations and to reject incredible situations.

1. Definition derived from Guidelines for Hazard Evaluation Procedures, AIChE, 1985, and from the Review of Emergency Systems, EPA, June, 1988.

Enclosure 2

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 RENNER BOULEVARD
LENEXA, KANSAS 66219**

RELEASE QUESTIONNAIRE
Information Request Pursuant to CERCLA §104(e)

A. Responsible Party Information

Name:	
Email Address:	
Website:	
NAICS Code:	
Number of Full Time Employees:	
Number of Part-Time Employees:	
Number of Contract Employees at Time of Incident:	

B. Mailing Address

Street:			
City:			
County:			
State:		Zip Code:	

C. Physical Address

Street:			
City:			
County:			
State:		Zip Code:	
Latitude (+) and Longitude (-) (if known):			

☐ Check here if incident location is the same as the Facility Physical location in Question 1.
Otherwise, complete the following:

D. Incident Location			
Street:			
City:			
County:			
State:		Zip Code:	
Lat./Long. of Release Location:		Milepost (if applicable):	

Federal, State and Local Authorities Notified (e.g., NRC, EPA Regional Office, SERC, LEPC, Police, Fire Department, 911): Please include all notifications made by the facility concerning this release during and after the release or during multi-day releases. For multi-day events, provide information for every day of release.

AGENCY	DATE (mm/dd/yy)	TIME 24 Hour Clock (Please specify time zone)	PERSON CONTACTED

E. Reporter

Provide the name, title and contact information of the individuals who made the notification to agencies listed in Question E:

Name:	
Title:	
Contact Information:	

F. Incident Times

This section asks several questions concerning the release of hazardous substances. Provide information for each substance(s) released. If exact responses cannot be provided, so indicate and provide estimates using your best professional judgment. Attach additional pieces of paper, if necessary.

	Date (mm/dd/yy)	Time (24-Hr Clock) (Specify Time Zone)
Incident Began:		
Incident Initially Detected:		
Reportable Quantity Met or Exceeded:		
Incident Ended:		

G. Incident Response

Agencies and Contractor(s) that Responded to Release:	

H. Substance Information

In the table below, provide release estimates for the substance(s) released (in pounds only) to each media. Quantities released to each media should add up to the total quantity released. For solutions, adjust the quantity of the substance released for substance concentration (e.g., report 1,000 lbs of 50% sulfuric acid released as 500 lbs sulfuric acid). Attach a Material Safety Data Sheet (MSDS) for each substance. For multiple substances attach an additional copy of this page for each substance.

	Media	Quantity/Lbs
Substance Name:	Air:	
CAS #	Surface Water:	
DOT UN#	Land:	
RCRA Waste Code: (if applicable)	Sewer to Treatment Facility:	
Physical State at Time of Release:	Total Quantity of Substance Released:	

- Is this substance reported on an EPCRA Tier II report or this facility? ☐ Yes ☐ No
- Is this substance in a Clean Air Act Risk Management Program process? ☐ Yes ☐ No
- Was this substance reported on your facility's EPCRA 313/TRI for the last calendar year?
☐ Yes ☐ No

I. Indicate as Follows:

	Quantity/Time	Units
Average Release Rate:		
Maximum Release Rate:		
Estimated Amount of Material Released During the First Minute of Incident:		

J. Indicate the weather conditions at the time of the release. Approximations are acceptable, however, identify the source of the information.

Source of Information:			
Wind Speed (miles per hour):		Temperature (Fahrenheit):	
Wind Direction (from):		Precipitation:	
Relative Humidity:		Cloud Cover:	

K. Indicate the number of persons injured, hospitalized and fatalities that occurred as a result of the release:

	Injuries	Hospitalized	Fatalities
Facility Employees:			
Contractors:			
General Public:			
Responders:			

L. Indicate the number of persons evacuated and/or sheltered in-place as a result of the release:

	Evacuated	Sheltered In Place
Facility Employees:		
Contractors:		
General Public:		

Enclosure 3

RELEASE QUESTIONNAIRE

Information Request Pursuant to CERCLA §104(e)

This release questionnaire asks several questions concerning the release of hazardous substances. Provide information for each substance(s) released. If exact responses cannot be provided, so indicate and provide estimates using your best professional judgment. Attach additional documentation to your response to this information request where required.

1. Provide as an attachment any and all documentation regarding notification made to the agencies listed in Question E. This includes, but shall not be limited to, call logs and reports.
2. Provide any and all supporting documentation regarding times listed in response to Question G.
3. Describe how the release was initially detected.
4. Provide the calculations regarding the amounts listed in Questions I and J.
5. What actions did the facility take between the time the release was initially detected and the time that federal, state and local officials (NRC, SERC and LEPC) were notified?
6. Provide the name, title and phone number of the person who made the initial detection of a potential release. What actions were taken by this person to report the release?
7. Provide the name, title and phone number of the person who determined when the reportable quantity was reached or exceeded, as well as the date and time of that determination. What actions were taken by this person to determine the quantity of the release and the time and date he had knowledge that the release exceeded the applicable RQ:
8. Describe where the release occurred and attach a map or diagram (to scale) of your facility showing facility boundaries and buildings and identifying the location and path of migration of the release.
 - a. Where did the release occur, indoors or outdoors? For indoor releases, was the entire release captured inside the building during the entire incident? If yes, explain how.
9. Did any quantity of the released material migrate off the facility boundaries: (Please note that releases to the air should be assumed to migrate off the facility boundaries.) If no, explain how this was accomplished.
10. Describe the source and causes of the release and how the release occurred.
 - a. Was an accident/incident investigation performed? If so, when did it start, who performed it, and was a report written? Please attach any and all accident/incident investigation(s) and any and all supporting documentation.

11. Are substance(s) involved in this release included in any permit issued to the facility? If yes, please list the permit numbers and who issued them.
12. Has this facility submitted a Continuous Release Report pursuant to EPCRA 304 and CERCLA 103 for this substance? If yes, what was the total annual amount of the substance(s) released in the previous year (in pounds)? If yes, what are the upper and lower bounds of the normal range of the release (in pounds or kilograms)? If yes, what is the Continuous Release case number assigned by the National Response Center (NRC)?
13. Indicate how the information listed in Question L was obtained (medical center, fire department, LEPC, facility records, etc.)
 - a. Please provide your facility's OSHA 300 log for the year covering the incident, if you are required to maintain one.
 - b. How was the number of persons evacuated and/or sheltered in-place as a result of the release obtained?
14. Did the facility receive any inquiries or complaints from off-site sources regarding the release?
15. Indicate all environmental effects that occurred as a result of the release, including but not limited to fish kills, vegetation damage, soil removal, groundwater contamination, wildlife kills, etc.
16. Estimate the dollar amount of property damage that occurred as a result of the release as follows:
 - a. On-site
 - b. Off-site
17. Was a written follow-up notice provided to the LEPC and SERC? If so, when was it sent? Please provide a copy(s) of the written follow-up notice.
18. Describe how the released material is used at your facility. What is the maximum amount, in pounds, of the released material that you have on-hand at any one time at your facility and the total manufactured or processed during the preceding calendar year?
19. What formalized hazard evaluation was performed prior to this release at the process or storage area within your facility where the accident occurred? When was it last conducted? How frequently is this evaluation conducted (e.g., every 5 years)?
 - a. Failure Modes/Effects Analyses
 - b. Fault Tree Analyses
 - c. HAZOP Studies
 - d. Human Error Analyses
 - e. What If Analyses
 - f. No evaluation ever done for this area
 - g. Other evaluation (describe the evaluation, indicate frequency, date completed)
20. Was the hazard evaluation performed effective in predicting a release event similar to this incident? Why or why not?

21. Has a release of the same substance occurred in the last five years?
22. Did the released material include oil of any kind or in any form, including, but not limited to petroleum, fuel oil, vegetable oil, animal oil, oily refuse and oil mixed with wastes? If yes, describe the type of oil. NOTE: A separate query may be sent by the EPA pertaining to the discharge and/or storage of oil.
23. Did the released material reach a wastewater treatment plant? Is the treatment plant on-site or off-site? If off-site, provide the name and location of this water treatment plant. If off-site, does your facility have a pretreatment permit? Please provide a copy of that permit.
24. Provide the name and location of any waterway (river, stream, creek, lake or pond) potentially impacted, including tributaries, drainage ditches or storm sewers? Was any water present in the waterway (creek, drainage ditch or storm sewer) at the time of the release?
25. What was the amount of the released material deposited on the adjoining shoreline and/or in the above-named waterway, ditch or storm sewer?

FACILITY CERTIFICATION

RESPONDING OFFICIAL

Name: _____

Title: _____

Address: _____

Telephone: (____) _____

E-Mail: _____

Signature: _____

Date: _____

SENIOR FACILITY OFFICIAL

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. § 1001 and 33 U.S.C. § 1319(c)(4)), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section of this document for which I cannot personally verify the truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Name (type or print)

Title

Signature